wherein the value R of the resistance being equal to $\rho L/\ell e$, the value of the length L, width $\ell$, and the thickness e being defined such that a mass of the flat conductor can resist electrical arcing up to 300°C.

18. (Amended) A high voltage resistance, comprising:

at least one support and a flat conductor with length L, width $\ell$ and thickness e fixed to the support and with a given resistivity $\rho$,

wherein the value R of the resistance being equal to $\rho L/\ell e$, the value of the length L, width $\ell$, and the thickness e being defined such that a mass of the flat conductor can resist electrical arcing up to 300°C,

wherein said resistance is folded on itself.

Please add new Claims 31 and 32 as follows:

31. (New) A high voltage resistance, comprising:

at least one support and a flat conductor with length L, width $\ell$ and a thickness e fixed to the support and with a given resistivity $\rho$,

wherein the value R of the resistance being equal to $\rho L/\ell e$, the value of the length L, width $\ell$, and the thickness e being defined such that a mass of the flat conductor can resist electrical arcing, and

wherein the flat conductor is in the shape of a coil.

32. (New) A high voltage resistance, comprising:

at least one support and a flat conductor with length L, width $\ell$ and thickness e fixed to the support and with a given resistivity $\rho$,

wherein the value R of the resistance being equal to $\rho L/\ell e$, the value of the length L, width $\ell$, and the thickness e being defined such that a mass of the flat conductor can resist electrical arcing,